

The Democratic leadership has chosen to ignore, if you will, the responsibility that this body has to address a request of the President. We are going to go off now and simply look for another day. Well, I am going to look for another day. I don't want to disrupt the body, but I am telling you that we have to have assurances that we are going to get an energy bill up, under some time agreement of some consequence that would be meaningful to dispose of the issue once and for all. Any Member can justify his vote today, not on the issue of an up-or-down vote on energy but on cloning or his particular position on the issue of railroad retirement.

We need to have the Members stand up and be counted on whether or not it is in our national security interest to have an energy bill and have an up-or-down vote and have amendments and include, if you will, the ANWR issue.

This isn't a vote on an energy bill today. It is not a vote on ANWR. This is a vote to address a procedural process that is very gray in the interpretation because nobody is going to be able to clearly define just what they are for and what they are against.

I see my friend from Kansas who wants to speak on the cloning. We have little time remaining. I will reserve 5 minutes of my remaining time and allow Senator BROWNBACK to have the difference.

I inquire of the time remaining on our side?

The PRESIDING OFFICER. The Senator from Alaska has 11½ minutes remaining.

Mr. MURKOWSKI. Mr. President, I yield 6 minutes to the Senator from Kansas.

#### MORATORIUM ON CLONING

Mr. BROWNBACK. Mr. President, I am caught in a position similar to that of the Senator from Alaska. I support what he put forward on the energy bill. It is of utmost urgency. We are so dependent upon unreliable sources of energy that we will look back and say we wish we had done something when we had a chance to do it. We are not doing it.

I have put forward the moratorium on cloning. To clarify, where some have said this is about stem cells, it is not about stem cells. It is about cloning—taking a human individual and creating them by cloning technology, similar to what was used with Dolly the sheep. That is not stem cells. That is about cloning. It is a moratorium on cloning—a 6-month timeout. Let's wait a little bit and think about what we are actually getting into as the world contemplates this matter. Yet technology is diving into it in the United States, as we saw announced a week ago the first human clone ever in the world by a Massachusetts company.

Let's think about this. That is why we brought up this issue on this procedural vehicle, saying let's get a clear vote on a 6-month moratorium. It is not an outright ban on everything for all time. It is 6 months where we hold hearings, do a thoughtful process. The House already has voted on the issue by over a 100-vote margin. They voted to ban cloning altogether. The President is pleading for a bill on banning cloning altogether. We weren't even going that far. We are saying a 6-month moratorium while we think about it, instead of letting private companies basically decide a huge issue for humanity.

Right now we are letting private companies decide if they think it is OK to clone humans or not by their own privately hired ethics board. Do they think it is fine we clone humans or not. They are making the decision when this is something that should be in the public purview and public domain after thoughtful conversation.

We are pleading for the time to do that. That is why I put the amendment together with the energy bill. We are getting toward the end of the session, and we need some discussion and clarity on this issue. Where the House has acted and the President is seeking a bill, we are in difficulty getting the bill done.

We are going to look for other vehicles and other ways and means to get this moratorium so we can have that pause, that thoughtful bit of time when we can contemplate this issue of human cloning. It seems to me far superior to say right now: Let's wait for a little bit, rather than wait until there are more clones out there and then say: OK, I guess it is too late; the decision has already been made for us. That is not the way a responsible, deliberative body should act.

I point out to my colleagues as well that this is a broad-based issue. In the House, the vote was broad based. Republicans and Democrats voted for the bill. We have sponsors from the left and the right of various groups—environmental groups, technology groups—that are questioning where some of the technology is taking us. We have sponsors forming conservative groups. There is a broad-based group supporting a moratorium or even an outright ban on human cloning.

I know a number of my colleagues have questions and difficulties about the issue of genetically modified organisms. I count 12 of my colleagues who are opposed to GMOs, genetically modified organisms. That is where one takes two different species and crosses them to get a hybrid of sorts. They are taking a bit of genetic material from one and inserting it into the other. Some of my colleagues have real questions about where this is going.

If some of my colleagues have questions about genetically modified orga-

nisms in plants and animals, what do they think about a genetically modified human? Is that something we want to let drift out there?

We put a huge number of regulations on agricultural biotech companies that are developing genetically modified organisms. Yet if someone wants to do that to the human species, fine, go ahead, there is no regulation on it. Is that a thoughtful way for a deliberative body to work?

We put limits on what one can do to eggs in other species. One cannot destroy a bald eagle egg. There is a Federal penalty for doing that. In this legislation, we are talking about creating and destroying. We are saying: Fine, go ahead.

Do we give less weight to the human species than we do an eagle? Is that a way for a thoughtful, deliberative body to work? When we have this technology rushing, should we not be saying let's really consider what this technology is doing and what it means to us and what it means to the future of our country and our species?

This 6-month moratorium seems to me to be a very modest step. I pleaded with the Democratic leadership: Let us bring this up on a separate stand-alone vote. They have not been willing to do so. This body now stands in the way of speaking on this as a country, when many other countries, 28 other countries have put forward laws and rules on human cloning.

That is what we are talking about. Others may call it stem cells, but this is about human cloning. The issue of stem cells has been dealt with by the administration and they have put forward rules and regulations. This is about human cloning.

That is why I sought to put this issue of human cloning on this particular amendment because we will not have any other vehicle to bring this forward. I am a sponsor of the railroad retirement bill. I have signed on to that bill. I am a cosponsor of the bill. I have heard from a number of my colleagues and constituents about it. I support the bill, but I also think we are at a unique point in human history where we need to consider what we are doing about cloning. For that reason, I put forward this particular amendment, and I ask my colleagues to consider it. I still want to find the time for us to consider this issue.

I yield the floor and reserve the remainder of the time.

Mr. FRIST. Mr. President, I rise in support of the 6 month moratorium on human cloning which the Senate is now debating.

In recent years, science has progressed rapidly. In 1997, Ian Wilmut and a team of researchers successfully created an adult cloned sheep, Dolly. With the specter of human cloning on the near horizon, the Senate nonetheless rejected legislation to ban this act

based largely on 2 arguments, that anti-cloning legislation would stop stem cell research, and that the science was not advanced enough to clone human beings.

Three years later, history and science have proven these arguments false. Not only are a few scientists moving forward to clone humans, but we also now know conclusively that a human cloning ban will not halt research that could lead to cures for chronic and debilitating illnesses, including promising embryonic stem cell research which I support.

The President has called for a ban on human cloning, and the House of Representatives has passed legislation by an overwhelming bipartisan margin. Now, it is up to the Senate.

The case against human cloning is compelling and comprehensive. But I understand the concerns some of my colleagues have expressed about moving too hastily in this manner, and I therefore believe that the responsible course of action stands before us today: A temporary moratorium on human cloning that will give the Senate the time it needs to diligently consider this issue while ensuring that events do not overtake us.

Let us act now to assure that next year's debate occurs in an environment where science has not moved ahead of the public interest. Let us give ourselves 6 months to deal carefully and responsibly with a matter of profound importance.

The risks of not acting to halt cloning far outweigh any concerns about impeding scientific progress. Cloning—and all its dangers—are upon us. Any possible medical advantage through cloning is far off at best. In fact, such advantages are theoretical only.

Last week, a Massachusetts company claimed to have cloned a human embryo. Moreover, Dr. Severino Antinori has in recent weeks reiterated his plan to produce cloned embryos by the end of the year, with the intent of impregnating up to 200 women.

The problem is simple. Failure to prohibit human cloning now speeds the day that a human being will be cloned. If that idea troubles you, I submit that you must support the moratorium.

Why must we prohibit all human cloning? We need to ban it to prevent the cloning and birth of a human. We need to prohibit it to safeguard the health of the women who will be directly exploited as a side effect of the procedure. And we need to prevent it for the sake of research ethics.

I know these issues can be confusing. Cloning issues intersect with stem cell research issues. It is complicated. One of my colleagues asked me: If I support embryonic stem cell research, can I be opposed to cloning? The short answer is "yes."

Human cloning is the use of somatic cell nuclear transfer to create a human

embryo genetically identical to a living or dead individual. The terms that are often thrown about, "reproductive or therapeutic," refer only to whether this is intended to create a new person or for research. The act of cloning, however, is the same in both cases.

There is near universal abhorrence to human reproductive cloning. Scientifically, consensus exists that it is unsafe. More significantly, the ethical and moral implications of cloning for "replacing" a lost loved one; re-creating persons with special attributes; developing a source of transplantable organs are highly troubling to all of us. Unfortunately, there are scientists working actively to achieve those ends.

Ultimately, if one wishes to prohibit human "reproductive cloning," it is necessary to prohibit all human cloning. Once cloned embryos exist, despite the best intentions to the contrary, there will be no way to prevent a cloned embryo from being implanted in a woman. Once that starts, there is no way to stop it.

We would not know when a cloned embryo is growing in a woman's uterus. Even if we know about such a pregnancy, we would not be able to stop it. We would not know until reproductive cloning experiments lead to spontaneous miscarriages, still births, or severely deformed babies. If this sounds alarmist, consider the fact that Scottish scientists had more than 270 failed pregnancies before they produced the cloned sheep, Dolly.

Some maintain that even placing a short hold on human cloning will halt research necessary to help sick, diseased, and injured persons. These claims are not supported by the facts.

They also say that therapeutic cloning is necessary to develop medical treatments through embryonic stem cell research that will not be rejected by the body's auto-immune response system. But this is by no means certain.

I strongly support embryonic stem cell research. As both a supporter and a scientist, I can tell you that this field remains in its earliest stages of basic research. At a hearing on stem cell research this fall, Secretary Thompson noted that clinical applications are years away. It is simply not the case that a ban on human cloning, particularly the temporary moratorium we are discussing today, would in any way harm the progress of stem cell research.

Perhaps someday a credible case will be made on the need for "cloned" tissue. But that day, if it ever comes, will be far in the future.

The justifications to ban human cloning are strong. I have only touched on one of the reasons today, and we will have ample time in the coming months to further develop and explore these arguments, just as we will have ample time to see the clear difference

between cloning and stem cell research and understand that promising stem cell research can, and will, go forward without human cloning.

But today's vote is even more simple than all of that. It is a vote to say "slow down," and let us as a Senate have time to adequately investigate and debate this issue. It is a vote to ensure that the science does not race ahead without the input of the public interest. I urge my colleagues to support the moratorium on human cloning. The moratorium will give us breathing space to study a complex and profoundly important matter. Additional time gives us the best chance of doing the right thing. In the meantime, we must take all possible steps to do no harm.

Mr. BAUCUS. Mr. President, I rise today to discuss the Lott amendment to the railroad retirement bill. In addition to other provisions, this amendment would enact a moratorium on a scientific process which holds the potential to save millions of human lives. I cannot support such a provision.

The final chapter of the Lott amendment deals with an issue that cuts to the core of our moral and ethical beliefs: human cloning.

I share the deep concerns that my colleagues and millions of Americans have with the prospect of cloning human beings. These concerns were born in 1997, when scientists in Great Britain announced that they had successfully cloned a sheep. They were stoked again last week, when a biotechnology company in Massachusetts announced that it had taken the first steps towards producing human embryos through cloning.

Let me be perfectly clear on this issue. I am adamantly opposed to any scientific project aimed at creating a clone of a human being. The implications of human reproductive cloning are morally repugnant. I do not know of a single respected scientist, ethicist, or religious leader who disagrees with me on this point.

The Lott amendment would impose a 6-month moratorium on this type of reproductive cloning, and I am fully supportive of this effort.

Unfortunately, the Lott amendment would also place a moratorium on a scientific procedure called somatic cell nuclear transfer. This process is closely related to the subject of stem cell research, which we heard so much about this summer. As you know, stem cells have the unique potential to grow into any tissue or organ in the body. Because of this property, stem cells may finally offer scientists the tools they need to cure diseases that have plagued humankind for centuries.

I strongly support scientific research into stem cells. I was heartened this summer, when President Bush and a bipartisan group of senators joined me in this support.

But while stem cell research offers promising possibilities, it faces many obstacles. One of these obstacles is the problem of rejection. If the stem cells used to treat diseases contain genetic material that is different from the genetic material of the patient, they may be rejected by the patient's body—in much the same manner as organs that are transplanted from one human being to another are often rejected.

Somatic cell nuclear transfer is a technique that may allow scientists to bypass this obstacle. In this process, stem cells are created using genetic material from a patient's own body. Because these new stem cells are genetically identical to a patient's own body, they would not be rejected.

This technique promises to speed up research into the treatment of crippling diseases like juvenile diabetes, cancer, Alzheimer's and Parkinson's. I would venture to guess that all Americans have had friends or family who have struggled with these devastating diseases; and millions of Americans would benefit by medical research that might one day eradicate them.

But the Lott amendment would stop this research in its tracks. It would bring a halt to research aimed at promoting life and relieving unspeakable suffering. For this reason, I cannot support this legislation—no matter how well-intentioned it is.

A reasonable alternative to the Lott amendment would be to make the reproductive cloning of a human being a criminal offense, subject to severe penalties. Such a solution would prevent the cloning of human beings without standing in the way of promising research aimed at promoting human life.

#### ENERGY SECURITY

Mr. FEINGOLD. Mr. President, it is with extreme disappointment that I rise to oppose the amendment offered by the Republican leader on behalf of the junior Senator from Alaska Mr. MURKOWSKI, and the senior Senator from Kansas, Mr. BROWNBACK. I urge my colleagues to oppose this amendment.

I am particularly troubled that this amendment was filed as work continues to have a bill drafted by the majority leader and brought to the floor. Those who have said we need urgency in this matter have succeeded. We are working on a bill. But that is not fast enough for some, apparently, and this amendment seek to shortcut the process even further.

Energy security is an important issue for America, and one which my Wisconsin constituents take very seriously. A national debate is unfolding about the role of domestic production of energy resources versus foreign imports, about the tradeoffs between the need for energy and the need to protect the quality of our environment, and

about the need for additional domestic efforts to support improvements in our energy efficiency and the wisest use of our energy resources. The President joined that debate with the release of his National Energy Strategy earlier this Congress. The questions raised are serious, and differences in policy and approach are legitimate.

I join with the other Senators today that are raising concerns about this amendment. As other Senators have highlighted, the amendment of the Senator from Alaska's, Mr. MURKOWSKI, is not comprehensive energy legislation. It opens the refuge to oil drilling, subsidizes oil companies, and does little to address serious energy issues that have been raised in the last few weeks.

Though the Senator from Alaska will say that his amendment would only open up drilling on 2,000 acres of the refuge. That is simply not the case. The entire 1½ million acres of the coastal plain of the refuge will be open for oil and gas leasing and exploration. Exploration and production wells can be drilled anywhere on the coastal plain under this language.

The first lease sale, and, I stress for my colleagues that this refers only to the first sale, has to be at least 200,000 acres.

I am assuming that when the Senator means that only 2,000 acres will be drilled he is referring to the language in H.R. 4 which states, and I am paraphrasing,

the Secretary shall . . . ensure that the maximum amount of surface acreage covered by production and support facilities, including airstrips and any areas covered by gravel berms or piers for support of pipelines, does not exceed 2,000 acres on the coastal plain.

That limitation is not a clear cap on overall development, Mr. President. It does not cover seismic or other exploration activities, which have had significant impacts on the Arctic environment to the west of the coastal plain. Seismic activities are conducted with convoys of bulldozers and "thumper trucks" over extensive areas of the tundra. Exploratory oil drilling involves large rigs and aircraft.

The language does not cover the many miles of pipelines snaking above the tundra, just the locations where the vertical posts that support the pipelines literally touch the ground. In addition, this "limitation" does not require that the 2,000 acres of production and support facilities be in one contiguous area. As with the oil fields to the west of the Arctic Refuge, development could and would be spread out over a very large area.

Indeed, according to the United States Geological survey, oil under the coastal plain is not concentrated in one large reservoir but is spread in numerous small deposits. To produce oil from this vast area, supporting infrastructure would stretch across the coastal

plain. And even if this cap were a real development cap, Mr. President, what would this mean? Two thousand acres, is a sizable development area. The development would be even more troubling if they were located in areas that are adjacent to the 8 million acres of wilderness that Congress has already designated in the Arctic Refuge which share a boundary with the coastal plain.

This amendment is controversial. Make no mistake, it will generate lengthy debate. I oppose it because it cuts short both the legitimate debate about drilling for oil in the Arctic Refuge that this country needs and the legitimate energy debate this country needs. Should this amendment be adopted, it would force the national energy legislation to be decided in the conference on pension bill—not in debate on an actual energy bill.

I have also heard concerns from the constituents in my State who have paid dearly for large and significant jumps in gasoline prices. Drilling in the refuge does nothing to address the immediate need of the Federal Government to respond to fluctuations in gas prices and help expand refining capacity. My constituents experienced prices of between \$3 to as high as \$8 per gallon between September 11 and 12, 2001. The Department of Energy immediately assured me that energy supplies were adequate following the terrorist attacks. These increases are now being investigated as possible price gouging by the Department of Energy and the State of Wisconsin. With adequate energy resources, constituents need assurances that these unjustified jumped can be monitored and controlled.

And I, along with many other Senators, have constituents who are concerned about the environmental impacts of this amendment, and what it says about our stewardship of lands of wilderness quality.

I also oppose this amendment for what it lacks. In light of the tragic events of September 11, 2001, a key element of any new energy security policy should be to actually seek to secure our existing energy system—from production to distribution—from the threat of future terrorist attack. Americans deserve to know that the Senate has protected the existing North Slope oil rigs and pipelines from attack. Americans deserve to know that the Senate has considered measures to reduce the vulnerability of above ground electric transmission and distribution by providing needed investments in siting of below ground direct current cables, in researching better transmission technologies, and in protecting transformers and switching stations. Americans want us to review thoroughly the security of our Nation's domestic nuclear power plant safety regimes to ensure that they continue to operate well. Finally, Americans living